



Welcome to Lewis & Clark County Extension

Montana State University Extension is a partnership between Lewis & Clark County, Montana State University and the United States Department of Agriculture. This three-way partnership provides educational programs in the areas of Agriculture/Natural Resources, 4-H Youth Development, Community Development and Family and Consumer Sciences. The Lewis & Clark County Extension office is located on the west side of the Exhibit Hall at the Fairgrounds. This location provides easy access, good parking and a friendly atmosphere for the public.



Janet Cerovski, Administrative Assistant; Catherine McNeil, 4-H Military Program Coordinator; Brent Sarchet, Ag and Natural Resources Extension Agent; Kim Degner, SNAP Education Program Manager

SNAP Education Program Starts in Lewis & Clark County

In August the Extension office welcomed Kim Degner as the SNAP Education Program Manager for the County. We are excited to have Kim on our team serving the SNAP clients in Lewis & Clark County. Kim is also going to do some food preservation outreach and education for the County.

The mission of the SNAP Nutrition Education Program is to improve the likelihood that individuals with limited resources will make healthy food choices within a limited budget and choose physically active lifestyles consistent with the current Dietary Guidelines for Americans and USDA Food Guidance System. The educational opportunities will be made available for both adults and youth throughout Lewis & Clark County. These programs focus specifically on increasing diet quality and physical activity, food resource management skills, food safety, and food security within the home. These classes are interactive and empower community members to develop skills that will help them and their families make healthy food choices as well as learn how to stretch their food dollars and create a number of healthy meals for the whole family. Currently in the planning stages, the Lewis & Clark County SNAP Nutrition Education Program will be partnering with a number of community partners to make these classes available to low-income families. Initial partners include Helena Food Share, YWCA, God's Love Shelter, the Helena Housing Authority, Career Training Institute, Office of Public Assistance, Lewis & Clark County Hunger Coalition, and the Rocky Mountain Development Center Head Start Program. New Program Manager Kim Degner has been working with these agencies to schedule a series of classes for eligible community members that will be available beginning October 2014.



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4-H Youth Development

Making a Difference in the Lives of Youth

Lewis & Clark County Extension strives to make a difference in the lives of youth through various programming efforts. In 2014, Extension educators reached over 600 youth in Lewis & Clark County through educational programs. The County 4-H program has 457 members that range in age from six to 18. The 4-H program has 142 volunteers and 25 active clubs. The top five 4-H projects in the county are shooting sports, market swine, photography, market beef and dog obedience. Through these projects, youth learn essential life skills that better prepare them for their future.

4-H Camp - Leadership Opportunities for Camp Counselors

The Lewis & Clark County 4-H Summer Camp was held at Loon Lake Lodge in Ferndale Montana in June. Fifty 4-H members attended the camp including 14 camp counselors. Being camp counselors gives youth the experience of being leaders and the opportunity to build leadership skills. All of the camp counselors went through a training prior to camp so they would have the necessary tools to be effective leaders at camp. This year's camp theme was "4-H Opolo It's not just a game." Camp participants worked together in groups to solve a mystery.



2014 Camp participants



Camp counselor Bethany Lindner leads an activity with fellow campers.

4-H Military Partnership Grant

Lewis and Clark County has been very involved in the 4-H Military Partnership grant this year. In November and again in March we worked with Operation Military kids and Helena Middle School to educate and train more than 40 young people in the 4-H Babysitting Curriculum. They created their own Magic Babysitter's Bag, learned basic first aid, acted out ways to handle difficult situations with children and received a Certificate of Completion at the end of the course.

It was a very busy summer with different camps. In June we received funding from the Treacy Foundation to continue Camp PeeWee at YMCA Camp Child for the third year. Both YMCA Camp Child and Sodexo contributed to the success of Camp PeeWee, an overnight camp for military youth six - 10 years old. They were able to learn skills to help with reintegration of family members. They also met others who had family members in the military and were able to share experiences with each other.

In a partnership with Operation Military Kids (OMK), Malmstrom Air Force Base and Montana Air National Guard, we received grant funding to provide two camps at Bull Run Guest Ranch for more than 25 Air Guard and Air Force youth. During the first camp, the youth learned about

horses using the 4-H Horse curriculum, were able to learn about technology and meet other youth who have had a loved one deployed. The youth learned life skills like communication and self-sufficiency to help with living in a military family.

The next Air Guard Camp was Wilderness Survival. The youth learned how to build fires, shelters and what to do if they find themselves lost in the wild. Not only did the youth learn important survival skills, but they also became more self-confident, as well as self-sufficient, which are important qualities in a military family.

We partnered with Fort Harrison and Montana National Guard Family Programs to provide 4-H programming at Fort Harrison Day Camp for 60 military youth between the ages six - 10 years old. The youth were able to participate in the Aerospace and Wind Energy 4-H projects, while working with 4-H teen leaders.

Rounding out the year, we again partnered with OMK and Montana National Guard for Family Resiliency Camp. The families used the Mobile Technology Lab to practice technology, worked with 4-H teen leaders on team building, and learned about other available 4-H projects.



4-H Military Camp participants having fun with some experiments at Fort Harrison.

Food Preservation Education

In September, the Lewis & Clark County Extension Office partnered with local non-profit Helena Community Gardens to provide a water bath and pressure canning workshop that was free and open to the public. The four-hour workshop brought in 26 community members to learn about preserving food safely and economically at home. The workshop included an in-depth overview of canning tools and procedures with Lake County Extension Agent Nori Pearce and the new Lewis & Clark County Extension Food Preservation Program Manager Kim Degner. Attendees participated in hands-on training by canning locally grown carrots and peaches with the tools provided by the Extension office. Each class participant had the opportunity to take home a jar of their own canned produce as well as a number of resources such as research-based recipes from the National Center for Home Food Preservation.

More than half of the class participants informally expressed interest in expanded content and frequency of food preservation trainings by the Extension office. The workshop was offered on a Saturday morning and many were interested in weekday classes that were limited to fewer participants in order to receive more specialized hands-on training. Besides the workshop, the Extension office tests pressure canner gauges and provides a number of resources for home food preservation. Other resources include a water bath canner for high-acid foods such as fruit and a pressure canner for low-acid foods such as vegetables and meats. These resources and classes help ensure that people have the knowledge and tools necessary to preserve food safely.



Lake County Extension Agent Nori Pearce instructs at recent canning class

Master Gardener Program - Impacting the Lives of Gardeners, their Families and their Communities in Lewis & Clark County

The Master Gardener Program has completed its fifth year in Lewis & Clark County. Since the spring of 2010, 276 people have taken the Level I course, 81 people have taken the Level II course, and 14 people have taken the Level III course in Bozeman. The Level I course is taught every spring and the Level II course is taught every fall in Helena. The Level III course is taught in Bozeman in the summer.



A pre and post-test/evaluation was conducted on the Level I class this spring. When asked how familiar they were with Extension before taking the class, 63 percent said they were familiar with Extension, but did not utilize the services or take classes offered by Extension; 22 percent indicated they were very familiar with Extension, and have utilized the services in the past, but 15 percent of respondents indicated they heard of Extension, but didn't know what they did. One respondent even said, "I didn't know Helena had an Extension service. This is great!" The Master Gardener program is reaching audiences that hadn't been reached. Once they are aware of the many things Extension does and offers, they are hooked.

The Extension office is always examining the effectiveness of their outreach, and the survey results provided valuable insight on what outreach sources are working and which are not. The Level I class was asked how they learned about the Master Gardener program in Lewis & Clark County. The majority (57 percent) of the respondents indicated they learned about the Master Gardener program from a family member, friend or co-worker. The remaining responses were divided evenly (14.3 percent each) between the Lewis & Clark County Extension website, MSU Extension website and the newspaper. With the majority of the respondents indicating they learned about the course from a family member, friend or co-worker speaks volumes to the quality of the Master Gardener program. The role of the websites as an outreach source wasn't much of a surprise, but the continued importance of the local newspapers helped the Extension office in future outreach efforts.

When designing classes, the Extension office makes a

concerted effort to design the course to meet the needs of the participant's different learning styles. When asked what is their preferred learning style, and how they learn the best, 71 percent indicated they were kinesthetic/hands-on learners. The next highest was visual/watching learners with 9 percent. Consequently, hands-on learning was incorporated into the Level I Master Gardener course whenever possible. The sections on irrigation and pruning incorporated hands-on learning opportunities.

The majority (65 percent) of the course participants indicated that their gardening knowledge/skill level was intermediate/average prior to taking the class; 23 percent indicated they were above average and 12 percent indicated they had little gardening experience. The topics that participants learned the most from were soil, nutrients and fertilizers and pruning.

The fact that 96 percent of course participants indicated they would recommend the class to others, and the other 4 percent indicated maybe, speaks to the quality of the program. The course presenters, Brent Sarchet, Lewis & Clark County Extension Agent and Toby Day, MSU Extension Horticulture Specialist were rated 4.7 and 4.85 (1 - 5 ranking) respectively.

Comments from class participants included some of the following:

"You guys did a tremendous job! Thank you! Thank you!"

"This is one of the best classes I've taken, partly because I love gardening/plants and partly because the instructors love gardening/plants. Thanks so much. I can't wait to get started. I'll see you in Level II."

"Great class... every topic was very interesting and the time spent would "fly" by! Thanks."

"I thought the class was fabulous and fun too! I learned a ton that I have already put into practice and will continue to develop in years to come. Awesome! Thank you for your passion, knowledge, and willingness to share will all of us!"

To become a certified Master Gardener, course participants must pass a test and complete volunteer hours. Many continue to volunteer beyond their volunteer commitment for the course. Master Gardeners in Lewis & Clark County have done

some amazing volunteer work this year. Some of the projects included: gardening education programs in schools, helping build community gardens, working at Food Share, landscaping for the elderly, and staffing the Master Gardener booth Saturdays at the Helena Farmers' Market. Since the program was started, Master Gardeners have logged over 2,674 volunteer hours; if valued at \$10 per hour, that is \$26,740 worth of volunteer time that has been put back into the community. Master Gardeners have also donated over 400 pounds of produce.

Volunteer Highlight

There are so many amazing volunteer projects that Master Gardeners are doing in their communities while putting to use the knowledge and skills

they have obtained through the Master Gardener Program. It is hard to focus on one particular project, but this year's focus is on the work that Master



Flowers at Original Governor's Mansion

Gardeners have done at the Original Governor's Mansion, which was led by Level III Master Gardener Connie Geiger. The Master Gardeners brought the landscaping around the Original Governor's Mansion back to life. They made an effort to select plant cultivars that would be true to the era of the mansion. Much research was done on sourcing appropriate plants and researching historical records on the plantings that were there. Many people attending the secret garden tour commented on how great the landscaping looked this year. Connie and her fellow Master Gardeners did amazing work.

Poultry Education Efforts

There is a growing national interest in raising poultry, especially backyard poultry in the city limits. Local evidence of this is seen in the number of cities and towns across Montana that have adopted ordinances allowing backyard poultry. The Extension office has experienced this poultry enthusiasm as evidenced by the number of calls with poultry questions and requests for poultry related presentations.

Consequently, for the last three years the Extension office has offered poultry workshops on various topics. Two poultry workshops were offered this year, one in January that was taught by Poultry Specialist Jim Adkins focused on breeding

of poultry, and another in September that covered safe on farm processing of your birds, cooking with heritage poultry with National Heritage Chef Steve Pope, poultry health and diseases with Dr. Mark Bland and poultry feeds and feeding with Brent Sarchet, Lewis & Clark County Extension Agent. The workshop series in September ended with a poultry dinner prepared by Chef Steve Pope. Additional poultry educational efforts this year included presentations for the Helena Public Library in March and for the City of East Helena in June.



National Heritage Chef Steve Pope teaches how to dress a chicken.

In 2013, the Extension office received a Montana Department of Agriculture Growth Through Agriculture Grant to purchase a commercial incubator. The incubator is housed at the Extension office and is available for the public to use. To date, the incubator has been used by eight farms. Having access to the incubator enables small farms to raise their own chicks and not be dependent on buying chicks from an out-of-state hatchery. Many of the farms who utilized the incubator were able to market their chicks across the state. Chicks that were hatched via the incubator were marketed at a local feed store in Helena and a feed store in Livingston. One producer was able to sell chicks across the country to a farm in New Hampshire. A commercial incubator is an expensive piece of



Extension office's Incubator

equipment that is cost prohibitive for many small farms. Having access to the incubator is opening up markets and income opportunities, which translates to improved farm profitability.

MSU Extension Fruit Tree Cultivar Research

In 2012, MSU/Lewis & Clark County Extension received a Specialty Crop Block Grant to conduct fruit tree cultivar research across the state. The project is a collaboration among Extension specialists and agents: Brent Sarchet, Lewis & Clark County Extension Agent and principle investigator on the project; Toby Day, Horticulture Specialist; Pat McGlynn, Flathead County Extension Agent; and Shelly Mills, Valley County Extension Agent. The research project involves testing six apple cultivars, five pear cultivars and three plum cultivars at eight different locations across the state. The orchards were planted in the spring of 2013 and 2014. The locations include: Columbia Falls, Power, Helena, Colstrip, Hinsdale, Bozeman, East Helena and Whitehall. The objectives of this project are to evaluate the performance of different cultivars at different locations across the state, so that future recommendations can be made based upon the findings at each location. A preliminary publication with the findings of the research will be produced in 2016. Each orchard location will host fruit tree workshops in the future, giving people the opportunity to see first hand how to manage an orchard, and select successful cultivars for their area. The other objective of this project is to establish local fruit production. Fruit is the most limiting component of local food systems across the state with the exception of parts of Western Montana. Once these orchards are producing, the fruit will be marketed to the local population, providing a local nutritional fruit source. The orchards will be educational resources for people interested in fruit tree production. They will also be used for additional research involving fertility and pest management. The project has collected two years of data on the performance of the different



GoodMac apples at Helena location

cultivars. While much more data needs to be collected before recommendations can be made on cultivar performance, some cultivars so far clearly stand out from others. Golden Spice pear is doing phenomenal at all eight locations. The majority of the apples are performing well. All of the plum cultivars except for at the Columbia Falls location are performing poorly. Many of the plums died after the first year.



Golden Spice Pear at the Helena location



Goodland apple at Helena location

MSU Extension Receives Grant for Montana Heritage Orchard Program



We don't have to look back too far in our history when the adlib "if you didn't grow it, you didn't eat it" was a part of life. As homesteaders settled Montana, one of the first priorities was establishing fruit trees. There are remnants of these orchards across the state. Some of these orchards are over 100 years old and still

produce fruit. The Extension office received a Montana Department of Agriculture Specialty Crop Block Grant in October 2014 to conduct research on these heritage orchards. The objectives of the project include: identify heritage orchards in Montana, preserve heritage orchards, identify the cultivars in the heritage orchards, propagate desirable fruit tree cultivars, distribute propagated trees to Montana and Wyoming nurseries, and build a web site and smartphone app for listing of the orchard sites that will contain information on each site (number of trees, age, cultivar names, picking dates, etc.). The project partners include: Brent Sarchet, Lewis & Clark County Extension Agent; Toby Day, MSU Extension Horticulture Specialist; Steve Miller, Professor University of Wyoming Department of Botany; Roger Joy, owner of Canyon View Nursery; Jay VanVoast, MSU Extension Information Systems Analyst/Web Developer.



Apple tree seedling located outside of Helena at an old farmstead

Grafting used to be a skill that many gardeners practiced, but today that skill is largely lost. In conjunction with the Heritage Orchard Program, grafting classes will be taught at different locations across the state starting in March 2015. The skill of grafting will enable people to propagate heritage trees for their own use, thus encouraging and expanding future fruit production in their area.



Toby Day, MSU Extension Horticulturalist, visits with the owner of the Crow Creek Orchard located outside of Radersburg that dates back to the 1890s

The Heritage Orchard Program and the fruit tree cultivar research will complement each other in accomplishing the overall goal of increasing fruit production in Montana. Fruit production may be a farming enterprise that will assist in overall farm diversification which has the potential to be very profitable if growers have the most accurate research-based information. Workshops and resources are currently being scheduled and developed to ensure the public has the best information on fruit production specific to Montana.



Heritage orchard located outside of Darby that dates back to the 1890s

Two Private Applicator Training (PAT) Workshops Taught This Spring

A three-credit training was taught in April in Helena with 51 participants. Another three-credit private applicator training was taught in May in Lincoln with 35 participants. Private applicators have to accumulate six credits every five years in order to maintain their license. Providing several classes a year enables more applicators to remain current on their credit requirements,

and keeps them up-to-date on the latest pesticide information. With assistance from Cecil Tharp, MSU Extension Pesticide Education Specialist, and local Master Gardeners, a series of YouTube recordings have been developed on pesticides in the environment and pesticide safety. The first four completed recordings can be viewed on the county website, <http://www.lccountymt.gov/extension.html>.



County Extension Agent Brent Sarchet talks about personal protective equipment at private applicator training.

Producers Add Value to Their Forage Crops Through the NWSFF Program

Over 400 acres of alfalfa, grass and barley straw were certified under the Noxious Weed Seed Free Forage Program (NWSFF). Producers with certified forage are able to receive a premium price for their hay and straw. During inspections, the location of any noxious weeds are located on a field map, so the producers know where the weeds are located in the field to assist with treatment and monitoring of the weeds.

Partnership with Helena Local

In January the Extension office partnered with a local non-profit, Helena Local, to offer a two-day produce growers workshop. Helena Local is a Community Supported Agriculture (CSA) that functions like a retailer. Helena Local buys locally grown produce and distributes the produce through a CSA share to consumers, thus providing a critical link between the growers and the consumers. The two-day workshop featured topics that included: Good Agricultural Practices (GAP), farm diversification strategies, yield prediction and planning. Many growers were unfamiliar with GAP, which is going to become more important in the near future with the Food Modernization Act. Growers obtained information and resources to help their operation become more profitable and viable in the future.

Contact Us



EXTENSION

Lewis & Clark County

www.msuextension.org

Montana State University Extension is an ADA/EO/AA Veteran's Preference Employer and provider of educational outreach.

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